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Meeting No. 26

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
REGION 8
Albuquerque, New Mexico

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SUMMARY OF COMMITTEE REPORTS

OF THE

WOODLAND SECTION MEETING

HELD AT

ALBUQUERQUE, NEW MEXICO

DECEMBER 7-10, 1937

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Regional Bulletin No. 21
Woodland Series No. 5
December 21, 1937

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
REGION 8
Albuquerque, New Mexico
December 21, 1937

MEMORANDUM FOR DISTRICT MANAGERS AND FORESTRY PERSONNEL

From: Hugh G. Calkins

Subject: Committee Reports of the Woodland Section

The attached committee reports were prepared by Woodland Section committees and agreed to by the Woodland Management Section meeting attended by district and regional representatives.

The statements presented are approved for general use supplementing the Washington Woodland Section Manual and Regional Bulletins Nos. 9, 15 and 16. The amendments listed in the Woodland Management committee report for Regional Bulletin No. 15 are effective at once and changes should be noted on the present edition as revised copies are not available. Present plans call for combining existing bulletins into a woodlands handbook and revisions will be made at that time. The attached material does not alter existing instructions regarding the participation of other Sections, notably Range, Agronomy and Wildlife, in planting and service programs.

The suggested dates for submitting nursery stock requests have been covered in Regional Memorandum No. 125 issued December 21, 1937. This memorandum gives procedure for reporting all types of planting material by all personnel planning revegetation work.

The seven points listed under "organization" in the report of the planting committee should be given careful consideration by both technical and administrative personnel. Effective planting and satisfactory survival can only be accomplished where properly supervised and equipped crews are trained and ready for action during the relatively short planting season, and it is imperative that administrative officers responsible for execution phases of the program work in close cooperation with the planning technicians.

Questions arising as to applicability of any statement given in these reports should be referred to this office immediately.

Hugh G. Calkins
Regional Conservator

REPORT OF PLANTING COMMITTEE

Wm. G. Stambaugh, Guy H. Murphy, J. D. Schott, M. J. Smith

PLANNING

Planting should only be done where adequate approved plans define the objectives and provide information necessary to effectuate these objectives in an efficient and orderly manner.

Form #4 (Revegetation) should be revised to include age class of rooted stock and size of cuttings. Provision should also be made for sketch maps for arrangement, spacing, location and other remarks. The location of planting area should be indicated on Form #4 and on the base map.

Form #4 should accompany Form #656 with additional copies being sent to personnel responsible for execution of the plan. One copy of Form #4 is to be returned to the file of the approving officer upon completion of the planting. Additional and supplemental sheets or maps should be prepared for special areas requiring planting details not possible to include on Revegetation Form #4.

A record should be kept showing a summary of species and quantities by units. These should be recorded at the time of work completion and kept up to date at all times. For the present this information may be recorded in tabular form or on progress maps as desired by the individual responsible, but standardization for the region should be accomplished as soon as possible.

ORGANIZATION

There exists a serious need for changes in planting organization to facilitate proper planning and execution of planting work. In the past difficulty has been experienced in obtaining properly-trained personnel to direct and supervise planting operations in the field. The following points are recommended in the interests of a sounder revegetation program:

1. Trained personnel as may be needed to carry out planting plans in an efficient and orderly manner should be made available in such numbers as the work requires.

2. Personnel charged with the execution of planting plans developed under the supervision of the Section of Woodland Management will be technically responsible to the district or project forester.

3. Insofar as possible planting crews should remain intact throughout the planting season.

4. The size of a planting crew is dependent on several variable factors and should be decided by the supervising forester in charge.

5. The forester should be furnished, upon basis of written requests, transportation, tools and equipment necessary to expedite the planting operation.

6. Due to the shortness of the planting season and perishability of materials used, priority consideration should be given to this type of work during the planting season.

7. Each district or project shall conduct a training program for all personnel directing and supervising planting operations. Planting foremen will be responsible for the training of the labor units. The forester on each district or project shall outline the training program for his respective district, giving consideration to the following:

   a. Care of planting stock.
   b. Interpretation of planting plans.
   c. Crew organization.
   d. Planting techniques.
   e. Preparation of records and reports.
   f. Safety.

The training program should be effected prior to the planting season, allowing for enough time to insure a thorough knowledge of all phases of the program. Where necessary the hiring of planting personnel will be made sufficiently in advance of the planting season to insure proper training.

Each district and project will be called upon to submit, not later than January 15, 1938, available information on improved and practical planting tools and techniques in use. This information is for consideration in the preparation of a handbook.

PROCUREMENT OF PLANTING STOCK

Total minimum requests for nursery stock, seed and other materials needed for planting operations the following season should be made to the regional forester annually in January and March.

A monthly summary of nursery stock requirements as covered by approved plans will be submitted to the regional forester the first of each month to furnish periodic information regarding the development of planting plans and planting stock requirements.

The Nursery Section shall be responsible for the proper care and packing of nursery stock for shipment to insure that the planting materials will arrive in good condition on the district. The practice of handling nursery stock in the field will be left to the individual judgment of the supervising forester due to variance of conditions existent on district or project units.

OBSERVATIONAL AND EVALUATION STUDIES

It is recommended that a committee consisting of a forester from each district and project be appointed to submit by March 1 for the consideration of the Regional Nurseryman, such observational plantings as he may desire for his district or project.

Each district and project forester should contact the district evaluation study representative and discuss woodland study needs for their areas.

MONTHLY REPORT
(Suggested Sample Form)

SPECIES	AGE CLASS	PLANNED TO DATE	PLAN NO.	PLAN NO.	PLAN NO.	PLAN NO.	PLAN NO.	PLAN NO.	PLAN NO.	PLAN NO.	TOTALS

REPORT OF WOODLAND MANAGEMENT COMMITTEE

J. W. Deppa, D. Beach, R. S. Richardson

1. The provisions and statements of basic policies regarding woodland management as outlined in the Woodland Section of the Manual and Regional Bulletin #15 as amended below, are considered satisfactory as a present guide to woodland management.

Suggested changes in Regional Bulletin #15 are as follows:

Page 3, second paragraph under "Basic considerations, etc." should read: "While it may be desirable in many instances to determine the kind and quantity of wood products through the medium of surveys, to do so is not always necessary. The private owner may be located near a National Forest from which his needs can be adequately supplied. Again, the quantity of materials on his lands may be in excess of his needs. The need for surveys is, therefore, a matter of judgment, based upon existing conditions of stand, nature and condition of site, need for products, opportunity for profitable disposal, silvicultural possibilities of stand, possible incidental products, and the interest and attitude of the owner and his ability to carry out the plan."

Page 4, point 3 under the third paragraph, should read:

"3. The cooperator agrees to use all brush from cutting which is not otherwise utilized by first placing this brush in gullies and old roads adjacent to the cutting area. After these needs are met, the brush will be scattered on areas of limited grass cover. Brush will not be piled and burned except for special reasons."

Page 5, under "Stand Improvement", in lieu of first paragraph, insert the following paragraph:

"Aside from demonstration plots all stand improvement work done by the Soil Conservation Service shall be done in conjunction with harvesting of materials for soil conservation activities and conversely all harvesting material shall be done in the best interests of stand improvement. It should hardly be necessary to add that all marking will be done in accordance with the need for control of soil loss."

2. Woodland management on cooperator areas must be developed along practical lines as determined by field conditions controlled by approved policy. This will generally mean the adoption of minimum

requirements for maintaining adequate soil cover, except that additional points of management are contingent upon such a variety of factors that no general regulations seem advisable at the present time.

3. The Committee recognizes, however, that a distinct need exists for guidance in woodland management over and above the statements of basic policy which constitutes the primary value of the handbook. Such guidance will be usable according to its practicability as tested by actual field trials. We therefore recommend that a handbook of methods and standards of woodland management be built up through studies of actual field projects, both good and bad. It is our thought that such information could best be disseminated by the regional office in the form of a series of loose-leaf notes covering the major activities of the division within the region. They should be so organized as to present a continuous picture of developments and specific methods.

REPORT OF THE WOODLAND HANDBOOK COMMITTEE
Geo. A. Herion, W. H. Walling, R. E. Wilson

The need for information on policy, practices and methods is recognized. The Washington Manual and Regional Woodland Section Bulletins in part fill existing needs, but additional information on various phases of woodlands work would be useful. In order that available information be made most useful existing bulletins should be compiled into a regional handbook and additional material added as required. In the preparation of handbook material the following suggestions are made:

1. Inasmuch as certain field techniques have not reached that point of development where full standardization is desirable, the handbook should be largely informational in character and direct personal judgment rather than restrict it.

2. The handbook material should be set up in loose-leaf style and bound in good stout properly-labeled covers so that revisions and additions can easily and quickly be made.

3. In form the handbook should be divided into sections covering major divisions similar to those covered in the Woodland Section of the Manual. It is recommended that silvicultural information for woodland species be included in the woodland management section of the handbook and that information pertaining to species used for erosion control be included in the planting section of the handbook.

4. Frequent additions, corrections and changes will keep the handbook up to date and most useful to field personnel. In the development of information for distribution as handbook material district and project foresters will submit to the Regional office various practices and techniques developed in doing their work in connection with planting, woodland management, or anything involved in management of land areas. Approved material supplied by district and project foresters as well as information supplied by the Regional staff may be included in the handbook and distributed to field personnel. Information on techniques which failed or produced poor results should be considered as well as those giving good results.

5. Usage of the term "Woodland" should be according to the definition given in the Woodland Section Manual.

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SUB-SURFACE TILLAGE

ON

ONE MAN'S FARM

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CONSERVATION FARMING

--MORE FOOD
--BETTER FOOD
--SOIL SAVINGS
--LABOR SAVINGS

A WARTIME NECESSITY

SUB-SURFACE TILLAGE
ON
ONE MAN'S FARM

PETE LOOS, A FARMER IN LOGAN COUNTY, COLORADO, BELIEVES IN TRYING NEW IDEAS WHICH SEEM TO BE SOUND IN PRINCIPLE, SO WHEN TECHNICIANS OF THE SOIL CONSERVATION SERVICE TALKED TO HIM ABOUT SUB-SURFACE TILLAGE, HE DECIDED TO GIVE IT A TRY.

"I'VE TRIED MULCHING IN GARDENS AND TREE PLOTS," MR. LOOS SAID, "AND IF I CAN KEEP A CONDITION LIKE THAT IN MY FIELDS, I AM SURE IT WILL CONSERVE WATER AND INCREASE MY YIELDS. YOU KNOW, IF WE GET THE MOISTURE AND SAVE IT, WE CAN RAISE CROPS IN THIS COUNTRY. THE SOIL IS CERTAINLY PRODUCTIVE."

MR. LOOS STARTED OUT IN THE SPRING OF 1942 WITH SOME CONCERN ABOUT DIFFICULTY HE MIGHT HAVE WITH HEAVY STUBBLE. BUT, DETERMINED TO GIVE THE PRACTICE A FAIR TRIAL, HE PROCEEDED, SEEING THAT THE PEACOCK MACHINE HE HAD CONVERTED TO A SUB-SURFACE TILLER WAS PROPERLY EQUIPPED TO HANDLE EVEN THE HEAVIEST STUBBLE.

A YEAR LATER, MR. LOOS AND AN SCS TECHNICIAN WENT OVER HIS FARM AND DISCUSSED HIS EXPERIENCE WITH SUB-SURFACE TILLAGE. "I HAD TO EQUIP MY MACHINE WITH ROLLING CUTTERS TO BREAK THE WAY. AFTER THAT, I HAD VERY LITTLE TROUBLE WITH THE TRASH," THE FARMER BEGAN.

ASKED IF HE HAD EXPERIENCED ANY OTHER DIFFICULTIES, MR. LOOS SAID: "WELL, OF COURSE, I HAVEN'T RUN INTO ALL CONDITIONS, I SUPPOSE, BUT THOSE THAT I HAVE DEALT WITH, I'VE OVERCOME. I FOUND OUT, FOR EXAMPLE, THAT I CAN'T GET OUT AT DAYBREAK TO BEGIN MY FALLOW OPERATIONS IF THERE IS A HEAVY DEW BECAUSE THEN THE STRAW IS TOUGH AND MY ROLLING CUTTERS GIVE ME TROUBLE. BUT, IF I WAIT UNTIL THE DEW IS OFF, I CAN

OPERATE WITHOUT ANY TROUBLE. A HUMMOCKY SURFACE IS BAD BECAUSE IT WILL LIFT A SWEEP OUT OF THE GROUND AND LET THE TRASH COLLECT ON THE BLADE. I'D RECOMMEND, IN THAT CASE, THAT THE FIELD BE LEVELED FIRST BY A VERY LIGHT DISCING OR SOME OTHER OPERATION. THEN THE MACHINE WILL OPERATE PERFECTLY."

WHEN MR. LOOS BEGAN HIS OPERATIONS, MANY OF HIS NEIGHBORS COULDN'T FIGURE OUT WHAT HE WAS DOING, SINCE THE SOIL DID NOT SEEM TO BE DISTURBED. BUT THE SOIL REALLY WAS CONSIDERABLY LOOSENED, AS A PERSON WOULD FIND IF HE TRIED DRIVING THROUGH A FIELD. THE STUBBLE, HOWEVER, WAS STILL INTACT ON THE SURFACE.

IT WAS SURPRISING HOW THE TRASH HAD SETTLED TO THE GROUND THROUGH THE SUMMER. THIS BROUGHT FORTH THE QUESTION AS TO HOW MANY OPERATIONS HAD BEEN PERFORMED DURING THE SEASON.

"THE THING THAT I REALLY LIKE," MR. LOOS SAID, IS HOW ECONOMICAL THIS KIND OF WORK IS. THREE OPERATIONS IN ALL--TWO WITH THE SUB-SURFACE TILLER, AND ONE OPERATION WITH THE ROD WEEDER--AND THE FALLOW WAS AS CLEAN AS ANY I HAD SEEN ALL SUMMER."

IT WASN'T UNUSUAL TO SEE PLENTY OF WEEDS ON FALLOW BECAUSE THAT WAS A WET YEAR AND FARMERS DIDN'T HAVE ENOUGH HELP TO PERFORM THE OPERATIONS AT THE RIGHT TIME. MR. LOOS' THREE-STEP TILLAGE WAS IN SHARP CONTRAST TO THE USUAL SIX OR SEVEN OPERATIONS IN THAT LOCALITY. "MY BROTHER PERFORMED SEVEN OPERATIONS ON HIS PLACE, SO I FIGURED I SAVED QUITE A LITTLE TIME AND EXPENSE," MR. LOOS COMMENTED.

"HOW ABOUT DRILLING? DID THE TRASH GIVE YOU ANY TROUBLE?", MR. LOOS WAS ASKED.

"NO, I USED A SEMI-DEEP FURROW DRILL WITH SHARPENED DISCS AND I HAD NO TROUBLE," HE REPLIED.

MR. LOOS' WHEAT CERTAINLY LOOKED GOOD. IT WAS A RATHER WINDY MARCH DAY AND THE SOIL WAS MOVING OFF OF SEVERAL NEARBY FIELDS, BUT THE TRASH AND COVER THAT MR. LOOS HAD LEFT WAS HOLDING THE SOIL PERFECTLY.

EXAMINATION OF THE DEPTH OF MOISTURE ON THREE FIELDS WHERE DIFFERENT FALLOW OPERATIONS HAD BEEN PERFORMED, SHOWED THERE WAS ABOUT ONE FOOT MORE MOISTURE WHERE THE TRASH HAD BEEN LEFT ON THE SURFACE AND THE PERCENTAGE OF MOISTURE WAS CONSIDERABLY HIGHER THAN WHERE THE STUBBLE HAD BEEN CLEANED OFF, OR PLOWED UNDER. THE CONDITION OF THE SOIL WAS IMPRESSIVE. ON TWO FIELDS WHERE THE FALLOW HAD BEEN PERFORMED BY OTHER IMPLEMENTS, THE SOIL WAS HARD AND COMPACT. SOIL TREATED WITH THE SUB-SURFACE TILLER HAD A NICE TILTH. IT WAS COMPACT ENOUGH, BUT WAS IN CONDITION TO ABSORB A HEAVY RAIN. IN BOTH OF THE OTHER CASES A LARGE AMOUNT OF WATER WOULD HAVE BEEN LOST IN RUNOFF.

AS THE MEN LEFT THE FIELDS, MR. LOOS SUMMED UP HIS IDEAS ABOUT THIS CONSERVATION FARMING PRACTICE THEY HAD BEEN DISCUSSING.

"WELL, IF WE CAN SAVE LABOR, WEAR AND TEAR ON MACHINERY, AND INCREASE THE YIELDS BY CUTTING DOWN ON THE AMOUNT OF MOISTURE LOST THROUGH EVAPORATION AND RUNOFF, I WILL CERTAINLY BE REPAID FOR TRYING OUT THIS NEW TYPE OF OPERATION. I CERTAINLY THINK IT HAS A PLACE IN DRYLAND FARMING IN EASTERN COLORADO."

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